WHAT IS CLAIMED IS:

1. A method for cleaning a process chamber, comprising the steps of:

introducing at least one cleaning gas to the process chamber; and

employing a rapid heating module located in the process chamber, wherein the rapid heating module increases the temperature of chamber parts and improves the surface temperature uniformity of chamber parts when the module is turned on, thereby assisting the cleaning activity of the cleaning gas such that the process chamber is cleaned.

2. The method of claim 1, wherein the cleaning gas is a fluorine-containing gas, a chlorine-containing gas, or a halogen-containing gas.

3. The method of claim 2, wherein the fluorine-containing gas is selected from the group consisting of HF, F.sub.2, NF.sub.3, SF.sub.6, C.sub.2 F.sub.6, CF.sub.4, and C.sub.3F.sub.8.

4. The method of claim 1, wherein the rapid heating module is a high power lamp assembly, a resistive heater assembly, an inductive heater assembly, or a combination of two or more of the assemblies.

5. The method of claim 4, wherein the lamp assembly is placed at the bottom of the process chamber.

6. The method of claim 4, wherein the resistive heater assembly is embedded in the chamber wall next to the liners.

7. The method of claim 4, wherein the inductive heater assembly is embedded in the chamber wall next to the liners.

8. The method of claim 1, wherein the process chamber is a chemical vapor deposition chamber or an etch chamber.

9. A method for cleaning a process chamber, comprising the steps of:

introducing at least one halogen-containing cleaning gas to the process chamber; and

employing a rapid heating module located in the process chamber, wherein the rapid heating module comprises a high power lamp assembly, a resistive heater assembly, an inductive heater assembly, or a combination of two or more of the assemblies, wherein the rapid heating module increases the temperature of chamber parts and improves the surface temperature uniformity of chamber parts when the module is turned on, thereby assisting the cleaning activity of the cleaning gas such that the process chamber is cleaned.

10. The method of claim 9, wherein the halogen-containing gas is a fluorine-containing gas or a chlorine-containing gas.

11. The method of claim 10, wherein the fluorine-containing gas is selected from the group consisting of HF, F.sub.2, NF.sub.3, SF.sub.6, C.sub.2 F.sub.6, CF.sub.4, and C.sub.3F.sub.8.

12. The method of claim 9, wherein the lamp assembly is placed at the bottom of the process chamber.

13. The method of claim 9, wherein the resistive heater assembly is embedded in the chamber wall next to the liners.

14. The method of claim 9, wherein the inductive heater assembly is embedded in the chamber wall next to the liners.

15. The method of claim 9, wherein the process chamber is a chemical vapor deposition chamber or an etch chamber.

16. A method for cleaning a process chamber, comprising the steps of:

introducing at least one fluorine-containing cleaning gas to the process chamber; and

employing a rapid heating module located in the process chamber, wherein the rapid heating module comprises a high power lamp assembly placed at the bottom of the process chamber, a resistive heater assembly or an inductive heater assembly embedded in the chamber wall next to the liners, or a combination of two or more of the assemblies, wherein the rapid heating module increases the temperature of chamber parts and improves the surface temperature uniformity of chamber parts when the module is turned on, thereby assisting the cleaning activity of the cleaning gas such that the process chamber is cleaned.

17. The method of claim 16, wherein the fluorine-containing gas is selected from the group consisting of HF, F.sub.2, NF.sub.3, SF.sub.6, C.sub.2 F.sub.6, CF.sub.4, and C.sub.3F.sub.8.

18. The method of claim 16, wherein the process chamber is a chemical vapor deposition chamber or an etch chamber.

19. A method for cleaning a process chamber, comprising the steps of:

introducing at least one precursor gas to the process chamber;

applying a plasma to the precursor gas in the process chamber, wherein the plasma activates the precursor gas to generate reactive species; and

employing a rapid heating module located in the process chamber, wherein the rapid heating module increases the temperature of chamber parts and improves the surface temperature uniformity of chamber parts when the module is turned on, thereby assisting the cleaning activity of the reactive species such that the process chamber is cleaned.

20. The method of claim 19, wherein the reactive species are generated from a precursor gas comprising a fluorine-containing gas, a chlorine-containing gas, or a halogen-containing gas.

21. The method of claim 20, wherein the fluorine-containing gas is selected from the group consisting of HF, F.sub.2, NF.sub.3, SF.sub.6, C.sub.2 F.sub.6, CF.sub.4, and C.sub.3F.sub.8.

22. The method of claim 20, wherein the rapid heating module is a high power lamp assembly, a resistive heater assembly, an inductive heater assembly, or a combination of two or more of the assemblies.

23. The method of claim 22, wherein the lamp assembly is placed at the bottom of the process chamber.

24. The method of claim 22, wherein the resistive heater assembly is embedded in the chamber wall next to the liners.

25. The method of claim 22, wherein the inductive heater assembly is embedded in the chamber wall next to the liners.

26. The method of claim 19, wherein the process chamber is a chemical vapor deposition chamber or an etch chamber.

27. A method for cleaning a process chamber, comprising the steps of:

introducing at least one halogen-containing gas to the process chamber;

applying a plasma to the halogen-containing gas in the process chamber, wherein the plasma activates the halogen-containing gas to generate reactive species; and

employing a rapid heating module located in the process chamber, wherein the rapid heating module comprises a high power lamp assembly, a resistive heater assembly, an inductive heater assembly, or a combination of two or more of the assemblies;

wherein the rapid heating module increases the temperature of chamber parts and improves the surface temperature uniformity of chamber parts when the module is turned on, thereby assisting the cleaning activity of the reactive species such that the process chamber is cleaned.

28. The method of claim 27, wherein the reactive species are generated from a fluorine-containing gas or a chlorine-containing gas.

29. The method of claim 28, wherein the fluorine-containing gas is selected from the group consisting of HF, F.sub.2, NF.sub.3, SF.sub.6, C.sub.2 F.sub.6, CF.sub.4, and C.sub.3F.sub.8.

30. The method of claim 27, wherein the lamp assembly is placed at the bottom of the process chamber.

31. The method of claim 27, wherein the resistive heater assembly is embedded in the chamber wall next to the liners.

32. The method of claim 27, wherein the inductive heater assembly is embedded in the chamber wall next to the liners.

33. The method of claim 27, wherein the process chamber is a chemical vapor deposition chamber or an etch chamber.

34. A method for cleaning a process chamber, comprising the steps of:

introducing at least one fluorine-containing gas to the process chamber;

applying a plasma to the fluorine-containing gas in the process chamber, wherein the plasma activates the fluorine-containing gas to generate reactive species; and

employing a rapid heating module located in the process chamber, wherein the rapid heating module comprises a high power lamp assembly placed at the bottom of the process chamber, a resistive heater assembly or an inductive heater assembly embedded in the chamber wall next to the liners, or a combination of two or more of the assemblies, wherein the rapid heating module increases the temperature of chamber parts and improves the surface temperature uniformity of chamber parts when the module is turned on, thereby assisting the cleaning activity of the reactive species such that the process chamber is cleaned.

35. The method of claim 34, wherein the fluorine-containing precursor gas is selected from the group consisting of HF, F.sub.2, NF.sub.3, SF.sub.6, C.sub.2 F.sub.6, CF.sub.4, and C.sub.3F.sub.8.

36. The method of claim 34, wherein the process chamber is a chemical vapor deposition chamber or an etch chamber.

37. A method for cleaning a process chamber, comprising the steps of:

introducing at least one precursor gas to a remote chamber, wherein the remote chamber is connected to the interior of the process chamber;

applying a plasma to the precursor gas in the remote chamber wherein the plasma activates the precursor gas to generate reactive species;

introducing the reactive species to the process chamber; and

employing a rapid heating module located in the process chamber, wherein the rapid heating module increases the temperature of chamber parts and improves the surface temperature uniformity of chamber parts when the module is turned on, thereby assisting the cleaning activity of the reactive species such that the process chamber is cleaned.

38. The method of claim 37, wherein the reactive species are generated from a precursor gas comprising a fluorine-containing gas, a chlorine-containing gas, or a halogen-containing gas.

39. The method of claim 38, wherein the fluorine-containing gas is selected from the group consisting of HF, F.sub.2, NF.sub.3, SF.sub.6, C.sub.2 F.sub.6, CF.sub.4, and C.sub.3F.sub.8.

40. The method of claim 37, wherein the rapid heating module is a high power lamp assembly, a resistive heater assembly, an inductive heater assembly, or a combination of two or more assemblies.

41. The method of claim 37, wherein the lamp assembly is placed at the bottom of the process chamber.

42. The method of claim 37, wherein the resistive heater assembly is embedded in the chamber wall next to the liners.

43. The method of claim 37, wherein the inductive heater assembly is embedded in the chamber wall next to the liners.

44. The method of claim 37, wherein the process chamber is a chemical vapor deposition chamber or an etch chamber.

45. A method for cleaning a process chamber, comprising the steps of:

introducing at least one halogen-containing gas to a remote chamber, wherein the remote chamber is connected to the interior of the process chamber;

applying a plasma to the halogen-containing gas in the remote chamber wherein the plasma activates the halogen-containing gas to generate reactive species;

introducing the reactive species to the process chamber; and

employing a rapid heating module located in the process chamber, wherein the rapid heating module comprises a high power lamp assembly, a resistive heater assembly, an inductive heater assembly, or a combination of two or more of the assemblies, wherein the rapid heating module increases the temperature of chamber parts and improves the surface temperature uniformity of chamber parts when the module is turned on,. thereby assisting the cleaning activity of the reactive species such that the process chamber is cleaned

46. The method of claim 45, wherein the reactive species is generated from a fluorine-containing gas or a chlorine-containing gas.

47. The method of claim 46, wherein the fluorine-containing gas is selected from the group consisting of HF, F.sub.2, NF.sub.3, SF.sub.6, C.sub.2 F.sub.6, CF.sub.4, and C.sub.3F.sub.8.

48. The method of claim 45, wherein the lamp assembly is placed at the bottom of the process chamber.

49. The method of claim 45, wherein the resistive heater assembly is embedded in the chamber wall next to the liners.

50. The method of claim 45, wherein the inductive heater assembly is embedded in the chamber wall next to the liners.

51. The method of claim 45, wherein the process chamber is a chemical vapor deposition chamber or an etch chamber.

52. A method for cleaning a process chamber, comprising the steps of:

introducing at least one fluorine-containing gas to a remote chamber, wherein the remote chamber is connected to the interior of the process chamber;

applying a plasma to the fluorine-containing gas in the remote chamber wherein the plasma activates the fluorine-containing gas to generate reactive species;

introducing the reactive species to the process chamber; and

employing a rapid heating module located in the process chamber, wherein the rapid heating module comprises a high

power lamp assembly placed at the bottom of the process chamber, a resistive heater assembly or an inductive heater assembly embedded in the chamber wall next to the liners, or a combination of two or more of the assemblies, wherein the rapid heating module increases the temperature of chamber parts and improves the surface temperature uniformity of chamber parts when the module is turned on, thereby assisting the cleaning activity of the reactive species such that the process chamber is cleaned

53. The method of claim 52, wherein the fluorine-containing gas is selected from the group consisting of HF, F.sub.2, NF.sub.3, SF.sub.6, C.sub.2 F.sub.6, CF.sub.4, and C.sub.3F.sub.8.

54. The method of claim 52, wherein the process chamber is a chemical vapor deposition chamber or an etch chamber.